Earned Value Management System Overview

Presented By:

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Agenda

- **Basic Concepts of Earned Value Management (EVM)**
- **Earned Value Management Systems (EVMS)**
- **EVMS Products**
- **Discussion**

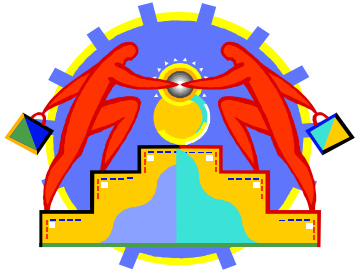
Course Learning Objecti

Upon completion of the training the student will have a *basic understanding* of:

- Basic concepts of Earned Value Management
- Guidance and requirements for an Earned Value Management System
- Purpose of EVMS products
- Additional Training Sources

Introductions

- **We've introduced ourselves**
- **Please introduce yourself with:**
  - ***Your name***
  - ***Your job title***
  - ***Your major project(s) assigned***
  - ***Your expectations of this course***



~1 minute per person

Basic Concepts

- **What?**
- **When?**
- **Why?**
- **How?**
- **Terminology**

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What is EVM?

An integrated management system that coordinates work, schedules, and cost objectives and employs objective earned value methods for program planning and control

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Top Level Terms

EVMS	**Earned Value Management System**	**Usually refers to contractor's internal management control systems that meet the EVM criteria**
EVM	**Earned Value Management**	**Usually refers to the overall process of managing projects with earned values processes**
EV	**Earned Value**	**Usually refers to the budgeted resources that have been earned when work is completed**

EVMS Governing Clause

- 234.005-70 Earned value management systems.
- When an offeror provides an earned value management system (EVMS) plan as part of its proposal in accordance with paragraph (b) of the provision at 252.234-7000 , the contracting officer shall forward a copy of the plan to the cognizant administrative contracting officer (ACO). The procuring contracting officer shall obtain the assistance of the ACO in determining the adequacy of the proposed EVMS plan.
- 234.005-71 Solicitation provision and contract clause.
- When the Government requires contractor compliance with DoD earned value management system criteria-
- (a) Use the provision at 252.234-7000, Notice of Earned Value Management System, in solicitations; and
- (b) Use the clause at 252.234-7001, Earned Value Management System, in solicitations and contracts.

Clause Requirements

- **Accepted Earned Value Management System (EVMS) complies with the EVMS guidelines**

  OR

- **Plan provided before award for Government review which**
  - **Describes EVMS to be used**
  - **Identifies any modifications needed to existing management systems to meet guidelines**
  - **Describes the management systems and application in terms of guidelines**
  - **Describes the proposed procedure for sub-tier supplier EVM management**
  - **Provides documentation describing the process and results of any third-party or self-evaluation of the system's compliance with EVMS guidelines**

- **Suppliers must identify the major subcontractors (or major subcontracted effort if major subcontractors have not been selected)**

When is EVM Used?

- **Major DoD Contracts (definition)**
  - **Development contracts >$73M (CY00$)**
  - **Production or O&M contracts > $315M (CY00$)**
  - **Currently excludes FFP, T&M contracts**

Formal Acceptance of Contractor's EVM System

Cost Performance Report

Cost/Schedule Status Report

- **Less than Major Contracts (threshold)**
  - **Greater than 12 months**
  - **Greater than $6.3M (CY00$), but less than threshold for major contract**

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Why Use EVM?

- **Provide adequate basis for reasonable decision making**
- **Encourage suppliers to implement effective management control systems**
- **Provide data from supplier's systems which:**
  - **Indicates work progress**
  - **Relates cost, schedule, and technical progress**
  - **Are valid, timely, and auditable**
  - **Summarizes at useful and practical levels**
- **Minimize changes to supplier's internal systems**
- **Single system for internal management and Gov't reporting**

Example

- **Given:**
  - **Total budget of $100,000**
  - **12 month effort**
  - **Produce 20 units**

- **Status:**
  - **Spent to date: $64,000**
  - **Time elapsed: 6 months**
  - **Units produced: 8 complete, 2 partial**

- **How are you doing, and how do you know how you are doing?**

- **How far along are you? (64%, 50%, 40%)**

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With EVM

- We should have completed 50% of the work
- We have completed $\simeq$ 42% of the work
  - Why? late receipts of material
- We have spent 64% of the budget
  - Why? material cost was higher than planned
- We forecast addition cost overruns for the remaining work
- Conclusion: immediate corrective action must be taken

How is it used?

- ***Break work scope into manageable pieces (WBS)***
- ***Establish budget and schedule baseline for each piece***
- ***Collect actual data and forecast future data***
- ***Compare actual and forecast with baseline data:*** *variances*
- ***Implement appropriate management action: corrective action, contingency plan, etc.***

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Terminology

BCWS	**B**udgeted **C**ost for **W**ork **S**cheduled	**Value of work planned to be done ---** *PLAN*
BCWP	**B**udgeted **C**ost for **W**ork **P**erformed	**Value of work accomplished ---** *EARNED VALUE*
ACWP	**A**ctual **C**ost of **W**ork **P**erformed	**Cost of work accomplished ---** *ACTUAL COST*
BAC	**B**udget **A**t **C**ompletion	**Total budget -- for total contract through any given level**
EAC	**E**stimate **A**t **C**ompletion	**Estimate of total cost – for total contract through any given level**

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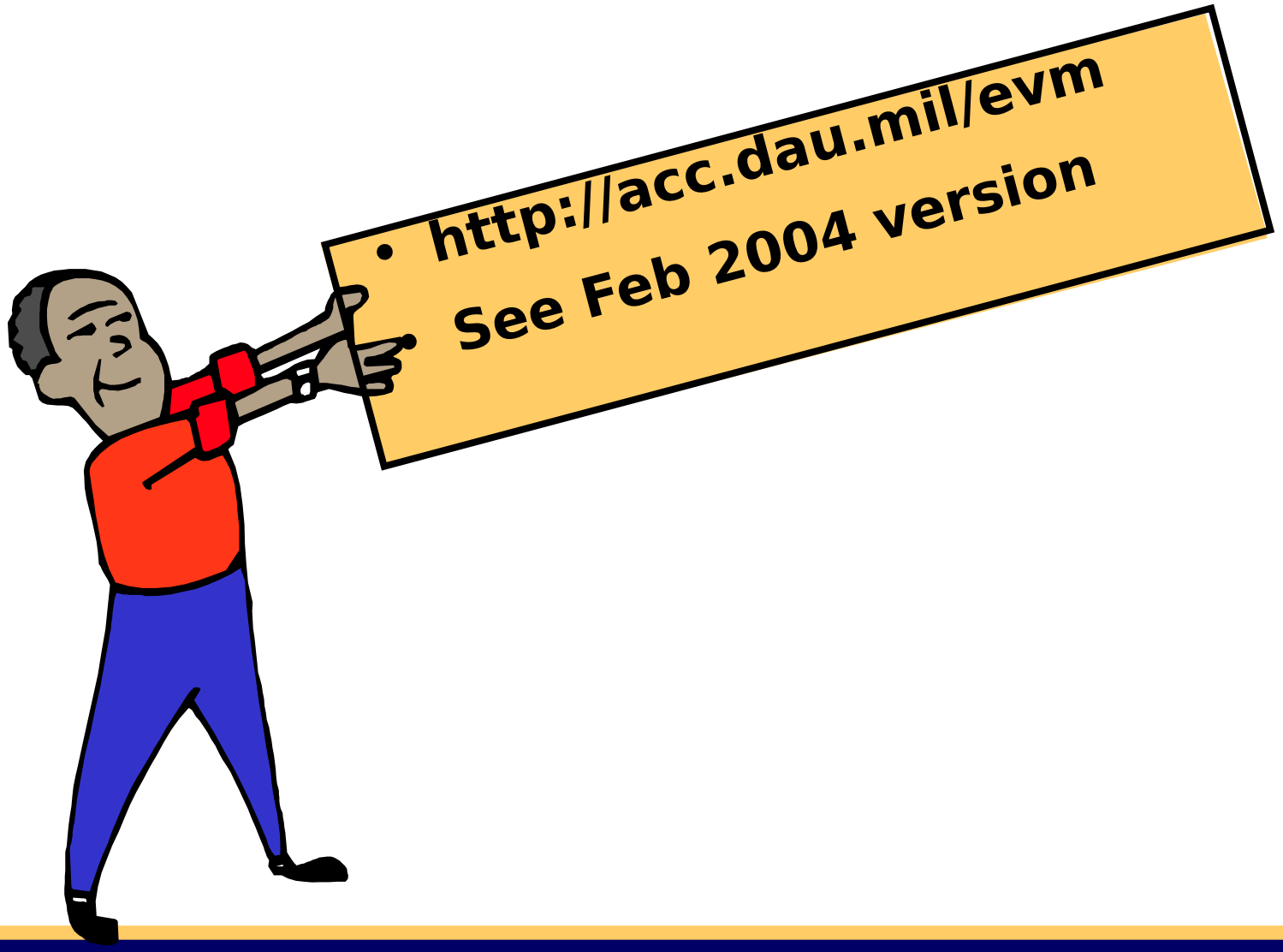
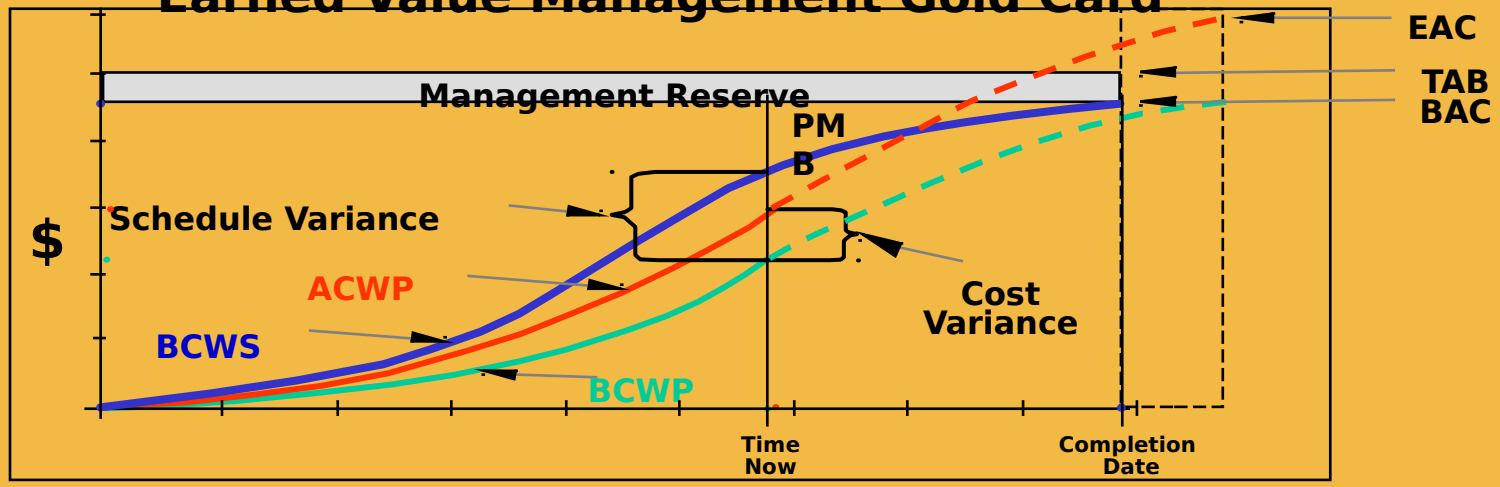
More EV Terms

PMB	**Performance Measurement Baseline**	**Contract budget that is spread over time to accomplish the entire scope of work.**
CA	**Control Account**	**Lowest WBS element assigned to a single point to plan & control**
MR	**Management Reserve**	**Budget withheld by contractor PM for unknowns or contingencies**
UB	**Undistributed Budget**	**Budget of defined activities not yet distributed to control accounts**
IBR	**Integrated Baseline Review**	**Formal review of supplier's performance measurement baseline**
WBS	**Work Breakdown Structure**	**Product oriented family tree - Organized method to break down a project into logical subdivisions at lower levels of details.**
CV	**Cost Variance**	**BCWP – ACWP**
SV	**Schedule Variance**	**BCWP – BCWS**
VAC	**Variance at Completion**	**BAC – EAC**

EV “Gold” Card



Defense Systems Management College
Earned Value Management Gold Card



VARIANCES *(Favorable is positive, Unfavorable is negative)*

- Cost Variance — $CV = BCWP - ACWP$
- Schedule Variance — $SV = BCWP - BCWS$
- Variance at Completion — $VAC = BAC - EAC$

$CV\ \% = CV / BCWP$

$SV\ \% = SV / BCWS$

PERFORMANCE INDICES *(Favorable is >_1.0, Unfavorable is < 1.0)*

- Cost Efficiency — $CPI = BCWP / ACWP$
- Schedule Efficiency — $SPI = BCWP / BCWS$

OVERALL STATUS

- Percent Complete $= \dfrac{BCWP\ CUM}{BAC}$
- Percent Spent $= \dfrac{ACWP\ CUM}{BAC}$

TO COMPLETE PERFORMANCE INDEX (TCPI)

$$TCPI_{(EAC)} = \frac{WORK\ REMAINING}{COST\ REMAINING} = \frac{BAC - BCWP\ CUM}{EAC - ACWP\ CUM}$$

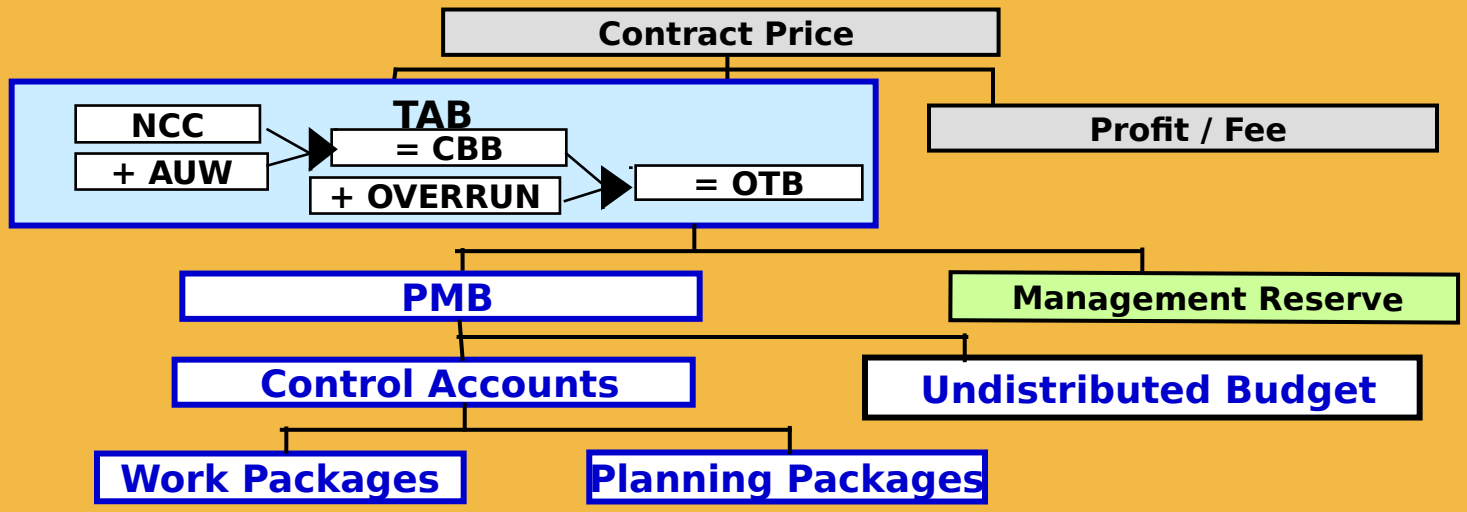
ESTIMATE AT COMPLETION

(EAC = ACWP + Estimate for Remaining Work)

$$EAC_{CPI} = \frac{BAC}{CPI\ CUM}$$

- $EAC_{Composite} = ACWP\ CUM + \dfrac{BAC - BCWP\ CUM}{(CPI\ CUM) \bullet (SPI\ CUM)}$

EV Gold Card


Contract Price
TAB
NCC
+ AUW
= CBB
+ OVERRUN
= OTB
Profit / Fee
PMB
Management Reserve
Control Accounts
Undistributed Budget
Work Packages
Planning Packages

EV Gold Card

TERMINOLOGY

NCC	– Negotiated Contract Cost	Contract price less profit / fee
AUW	– Authorized Unpriced Work	Work authorized to start, not yet negotiated
CBB	– Contract Budget Base	Sum of NCC and AUW
OTB	– Over Target Baseline	Sum of CBB and recognized overrun
TAB	– Total Allocated Budget	Sum of all contract budgets - NCC,CBB or 0TB (includes MR)
BAC	– Budget At Completion	Cumulative BCWS - total end point of PMB (excludes MR)
PMB	– Performance Measurement Baseline	Contract time-phased, budgeted work plan (excludes MR)
MR	– Management Reserve	Contractor PM's Contingency budget
UB	– Undistributed Budget	Broadly defined activities not yet distributed to CAs
CA	– Control Account	Contractor key management control point - CWBS element
WP	– Work Package	Near-term, detail-planned activities within a CA
PP	– Planning Package	Far-term CA activities not yet defined into detail Work Packages
BCWS	– Budgeted Cost for Work Scheduled	Value of work scheduled -- PLAN
BCWP	– Budgeted Cost for Work Performed	Value of work completed -- EARNED VALUE
ACWP	– Actual Cost of Work Performed	Cost of work completed -- ACTUAL COSTS INCURRED
EAC	– Estimate At Completion	Estimate of total contract costs

EVM POLICY (DOD 5000.2-R)

ALTERNATIVE EV MANAGEMENT APPLICATIONS

LEVEL 1. EVMS Industry Standards Management Application

Contractor management system certified as meeting Industry Standards

- Required for non-FFP contract exceeding $73M RDT&E or $315M in procurement (CY00$).
- PM may apply to contracts below-threshold —consider benefits, risk and criticality.
- Contractor must establish, maintain, and use a system that meets the the 32 Industry Standards.
- Cost Performance Report (CPR) delivered as a CDRL item.
  - 5 Formats (WBS, Organization, Baseline, Staffing, and Explanations)

LEVEL 2. C/SSR Management Application

Contractor Management system not certified

- Required for non-FFP contract exceeding $6.3M (CY00$) and 12 months in length.
- 'Reasonably objective' EV methods acceptable, traceability at higher level (CA vs WP)
- The CPR or the Cost/Schedule Status Report (C/SSR) delivered as a CDRL item.

June 2000

EVM Basic Concepts Summary

- EVM is:
  - **a** *performance measurement tool*
    - **Is all the work scope planned with appropriate resources and schedule?**
  - **a** *performance measurement tool*
    - **How am I doing against my baseline plan?**
  - **a** *performance management tool*
    - **What do I need to do to bring the project back on track?**

- EVM is not:
  - **just for bean counters**
  - **cost history**
  - **a process/system dictated by the Gov't**

EVM Systems

- **Industry Standard**
- **Guidelines for Implementation**
- **Approval of EVMS**
- **Indications of Use**

Industry Standard

- Developed at invitation of PDUSD(A&T)
- A key to getting Industry ownership
- 32 guidelines outlined in NDIA ANSI EIA 748
- Adopted by DoD in DoDI 5000.2R
- Goal: supplier owned and managed systems “accepted” by DoD

Supplier Responsibilities

- **Implement, maintain and use an EVMS that satisfies the intent of the ANSI standard and all contract requirements**
- **Develop an internal surveillance plan to ensure the system is current and meeting requirements**
- **Initiate joint surveillance with DCMA (as appropriate)**

32 Industry Guidelines

- **Source of guidelines**
  - **ANSI/EIA-748 Industry Guidelines**
    Document belongs to Industry and others may pay in order to obtain a copy
  - **Earned Value Management Implementation Guide (EVMIG)**
    ***The Earned Value Management Criteria provide the criteria for determining whether contractors' earned value management systems are acceptable*.**

    http://www.acq.osd.mil/pm/currentpolicy/jig/evmig1.htm

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32 Industry Guidelines

Industry recognizes the importance of earned value in program management, and has developed an industry based standard "Earned value Management System Guidelines" for applying earned value. The 32 Guidelines from this industry standard have become the Department of Defense baseline for earned value management systems.

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So What are These 32 Guidelines???

Organization

- ✓ **2.1. Define the authorized work elements for the program. A work breakdown structure (WBS), tailored for effective internal management control, is commonly used in this process.**
- ✓ **2.2. Identify the program organizational structure including the major subcontractors responsible for accomplishing the authorized work, and define the organizational elements in which work will be planned and controlled.**
- ✓ **2.3. Provide for the integration of the company's planning, scheduling, budgeting, work authorization and cost accumulation processes with each other, and as appropriate, the program work breakdown structure and the program organizational structure.**
- ✓ **2.4. Identify the company organization or function responsible for controlling overhead (indirect costs).**
- ✓ **2.5. Provide for integration of the program work breakdown structure and the program organizational structure in a manner that permits cost and schedule performance measurement by elements of either or both structures as needed.**

Planning and Budgeting

- ✓ **2.6. Schedule the authorized work in a manner which describes the sequence of work and identifies significant task interdependencies required to meet the requirements of the program.**
- ✓ **2.7. Identify physical products, milestones, technical performance goals, or other indicators that will be used to measure progress.**
- ✓ **2.8. Establish and maintain a time-phased budget baseline, at the control account level, against which program performance can be measured. Budget for far-term efforts may be held in higher level accounts until an appropriate time for allocation at the control account level. Initial budgets established for performance measurement will be based on either internal management goals or the external customer negotiated target cost including estimates for authorized but undefinitized work. On government contracts, if an over target baseline is used for performance measurement reporting purposes, prior notification must be provided to the customer.**
- ✓ **2.9. Establish budgets for authorized work with identification of significant cost elements (labor, material, etc.) as needed for internal management and for control of subcontractors.**

Planning and Budgeting

- ✓ **2.10. To the extent it is practical to identify the authorized work in discrete work packages, establish budgets for this work in terms of dollars, hours, or other measurable units. Where the entire control account is not subdivided into work packages, identify the far term effort in larger planning packages for budget and scheduling purposes.**
- ✓ **2.11. Provide that the sum of all work package budgets plus planning package budgets within a control account equals the control account budget.**
- ✓ **2.12. Identify and control level of effort activity by time-phased budgets established for this purpose. Only that effort which is unmeasurable or for which measurement is impractical may be classified as level of effort.**
- ✓ **2.13. Establish overhead budgets for each significant organizational component of the company for expenses which will become indirect costs. Reflect in the program budgets, at the appropriate level, the amounts in overhead pools that are planned to be allocated to the program as indirect costs.**
- ✓ **2.14. Identify management reserves and undistributed budget.**
- ✓ **2.15. Provide that the program target cost goal is reconciled with the sum of all internal program budgets and management reserves.**

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Accounting Considerations

- ✓ **2.16. Record direct costs in a manner consistent with the budgets in a formal system controlled by the general books of account.**
- ✓ **2.17. When a work breakdown structure is used, summarize direct costs from control accounts into the work breakdown structure without allocation of a single control account to two or more work breakdown structure elements.**
- ✓ **2.18. Summarize direct costs from the control accounts into the contractor's organizational elements without allocation of a single control account to two or more organizational elements.**
- ✓ **2.19. Record all indirect costs which will be allocated to the contract.**
- ✓ **2.20. Identify unit costs, equivalent units costs, or lot costs when needed.**

Accounting Considerations

- ✓ **2.21. For EVMS, the material accounting system will provide for:**

  (1) Accurate cost accumulation and assignment of costs to control accounts in a manner consistent with the budgets using recognized, acceptable, costing techniques.

  (2) Cost performance measurement at the point in time most suitable for the category of material involved, but no earlier than the time of progress payments or actual receipt of material.

  (3) Full accountability of all material purchased for the program including the residual inventory.

Analysis & Mgt Reports

- **2.22. At least on a monthly basis, generate the following information at the control account and other levels as necessary for management control using actual cost data from, or reconcilable with, the accounting system:**

  (1) Comparison of the amount of planned budget and the amount of budget earned for work accomplished. This comparison provides the schedule variance.

  (2) Comparison of the amount of the budget earned the actual (applied where appropriate) direct costs for the same work. This comparison provides the cost variance.
- **2.23. Identify, at least monthly, the significant differences between both planned and actual schedule performance and planned and actual cost performance, and provide the reasons for the variances in the detail needed by program management.**

Analysis & Mgt Reports

- ✓ **2.24. Identify budgeted and applied (or actual) indirect costs at the level and frequency needed by management for effective control, along with the reasons for any significant variances.**
- ✓ **2.25. Summarize the data elements and associated variances through the program organization and/or work breakdown structure to support management needs and any customer reporting specified in the contract.**
- ✓ **2.26. Implement managerial actions taken as the result of earned value information.**
- ✓ **2.27. Develop revised estimates of cost at completion based on performance to date, commitment values for material, and estimates of future conditions. Compare this information with the performance measurement baseline to identify variances at completion important to company management and any applicable customer reporting requirements including statements of funding requirements.**

Revisions & Data Maintenance

- ✓ **2.28. Incorporate authorized changes in a timely manner, recording the effects of such changes in budgets and schedules. In the directed effort prior to negotiation of a change, base such revisions on the amount estimated and budgeted to the program organizations.**
- ✓ **2.29. Reconcile current budgets to prior budgets in terms of changes to the authorized work and internal replanning in the detail needed by management for effective control.**
- ✓ **2.30. Control retroactive changes to records pertaining to work performed that would change previously reported amounts for actual costs, earned value, or budgets. Adjustments should be made only for correction of errors, routine accounting adjustments, effects of customer or management directed changes, or to improve the baseline integrity and accuracy of performance measurement data.**
- ✓ **2.31. Prevent revisions to the program budget except for authorized changes.**
- ✓ **2.32. Document changes to the performance measurement baseline.**

Initial Compliance Reviews

- **Required before system acceptance via AA**
- **Lead may be by Contractor or Government**
- **Contractor led is termed “self-evaluation”, but includes sufficient Government involvement to assure the system is compliant**
- **Government led reviews should encourage Contractor team participation and avoid large, disruptive teams.**

Advance Agreements

An agreement between the Government and the contractor

- Content:
  - Contractor commitment to maintain and use accepted EVMS on current and future contracts
  - Contractor commitment to use EVMS data as management tool by all levels of management
  - CAO and contractor commitment to perform joint system surveillance

Indicators of EVMS USE

- **Supplier PM and Control Account Managers (CAMs) demonstrated use of the EVMS**
- **EVMS data integrated in supplier's decision process by all levels of management**
- **Supplier committed to EVMS training and surveillance and is proactive in EVMS improvement**
- **EVMS data used to accurately predict performance**
- **EVMS accurately reflects program status**
- **Supplier has EVMS integrated into risk management**

Additional Information

- **NDIA ANSI 748 Intent Guide**

http://www.ndia.org/Content/ContentGroups/Divisions1/Procurement/PDFs10/ANSI_EIA_748_IntentGuide.pdf.pdf

NDIA EVM Surveillance Guide

http://www.ndia.org/Content/ContentGroups/Divisions1/Procurement/PDFs10/NDIA_Surveillance_Guide.pdf

EVMS Products

- **Cost Performance Reports (CPRs)**
- **Cost/Schedule Status Reports**

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Purpose of the CPR

- **Provide the Program Manager with cost, schedule, and technical status of the program.**

- **Provide an impact quantification in dollars and hours, outlining any trends.**
- **Provide a basis for detailed analysis of the financial health and technical risk of the contract.**

Cost Performance Report (CPR)

- **Format 1: Cost and schedule progress by WBS**
  (specified reporting level usually at level 3)
- **Format 2: Cost and schedule progress by Organization**
- **Format 3: Changes to performance measurement baseline (PMB)**
- **Format 4: Manpower forecast**
- **Format 5: Variance analysis and other important information**

Current and Cum data

CPR Format 1

CLASSIFICATION *(When filled in)*

COST PERFORMANCE REPORT
FORMAT 1 - WORK BREAKDOWN STRUCTURE

DOLLARS IN _____

1. CONTRACTOR	2. CONTRACT		3. PROGRAM	4. REPORT PERIOD
a. NAME	a. NAME		a. NAME	a. FROM *(YYMMDD)*
b. LOCATION *(Address and ZIP Code)*	b. NUMBER			b. TO *(YYMMDD)*
	c. TYPE	d. SHARE RATIO	b. PHASE *(X one)* ☐ RDT&E ☐ PRODUCTION	

5. CONTRACT DATA

a. QUANTITY	b. NEGOTIATED COST	c. EST. COST AUTHORIZED UNPRICED WORK	d. TARGET PROFIT/ FEE	e. TARGET PRICE	f. ESTIMATED PRICE	g. CONTRACT CEILING	h. ESTIMATED CONTRACT CEILING

6. ESTIMATED COST AT COMPLETION				7. AUTHORIZED CONTRACTOR REPRESENTATIVE	
	MANAGEMENT ESTIMATE AT COMPLETION (1)	CONTRACT BUDGET BASE (2)	VARIANCE (3)	a. NAME *(Last, First, Middle Initial)*	b. TITLE
a. BEST CASE				c. SIGNATURE	d. DATE SIGNED *(YYMMDD)*
b. WORST CASE					
c. MOST LIKELY					

8. PERFORMANCE DATA

ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS		AT COMPLETION		
	BUDGETED COST		ACTUAL	VARIANCE		BUDGETED COST		ACTUAL	VARIANCE						
	WORK SCHEDULED (2)	WORK PERFORMED (3)	COST WORK PERFORMED (4)	SCHEDULE (5)	COST (6)	WORK SCHEDULED (7)	WORK PERFORMED (8)	COST WORK PERFORMED (9)	SCHEDULE (10)	COST (11)	COST VARIANCE (12)	BUDGET (13)	BUDGETED (14)	ESTIMATED (15)	VARIANCE (16)
a. WORK BREAKDOWN STRUCTURE ELEMENT															
b. COST OF MONEY															
c. GENERAL & ADMINISTRATIVE															
d. UNDISTRIBUTED BUDGET															
e. SUBTOTAL *(Performance Measurement Baseline)*															
f. MANAGEMENT RESERVE															
g. TOTAL															

9. RECONCILIATION TO CONTRACT BUDGET BASE

a. VARIANCE ADJUSTMENT															
b. TOTAL CONTRACT VARIANCE															

CLASSIFICATION *(When filled in)*

SAMPLE FORMAT 1 - WORK BREAKDOWN STRUCTURE Page 1 of 5

COST PERFORMANCE REPORT
FORMAT 3 - BASELINE

DOLLARS IN _____

1. CONTRACTOR	2. CONTRACT		3. PROGRAM	4. REPORT PERIOD
a. NAME	a. NAME		a. NAME	a. FROM *(YYMMDD)*
b. LOCATION *(Address and ZIP Code)*	b. NUMBER			b. TO *(YYMMDD)*
	c. TYPE	d. SHARE RATIO	b. PHASE *(X one)* ☐ RDT&E ☐ PRODUCTION	

5. CONTRACT DATA

a. ORIGINAL NEGOTIATED COST	b. NEGOTIATED CONTRACT CHANGES	c. CURRENT NEGOTIATED COST *(a. + b.)*	d. ESTIMATED COST OF AUTHORIZED UNPRICED WORK	e. CONTRACT BUDGET BASE *(c. + d.)*	f. TOTAL ALLOCATED BUDGET	g. DIFFERENCE *(e. - f.)*

h. CONTRACT START DATE *(YYMMDD)*	i. CONTRACT DEFINITIZATION DATE *(YYMMDD)*	j. PLANNED COMPLETION DATE *(YYMMDD)*	k. CONTRACT COMPLETION DATE *(YYMMDD)*	l. ESTIMATED COMPLETION DATE *(YYMMDD)*

6. PERFORMANCE DATA

ITEM	BCWS CUMULATIVE TO DATE	BCWS FOR REPORT PERIOD	BUDGETED COST FOR WORK SCHEDULED (BCWS) *(Non-Cumulative)*											UNDISTRIBUTED BUDGET	TOTAL BUDGET
			SIX MONTH FORECAST						ENTER SPECIFIED PERIODS						
			+ 1	+ 2	+ 3	+ 4	+ 5	+ 6							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
a. PERFORMANCE MEASUREMENT BASELINE *(Beginning of Period)*															
b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD															
c. PERFORMANCE MEASUREMENT BASELINE *(End of Period)*															
7. MANAGEMENT RESERVE															
8. TOTAL															

ANSI/EIA-748-B-1998

CPR FORMAT 3

- Have all changes to the baseline been authorized?
- Were there any uses of Management Reserve?
- Is format 3 BCWS for beginning of period the same as current period BCWS on Format 1?
- Is the end of period cum to date BCWS on Format 3 the same as cum BCWS on Format 1?
- Is the Performance Measurement Baseline (PMB) the same as the PMB on Format 1 and 2?
- Is Section 5, Contract Data, complete?
- **Bottom-line** - All data entries should reconcile

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CPR Format

CLASSIFICATION

PAGE _____OF _____

COST PERFORMANCE REPORT - PROBLEM ANALYSIS 5

CONTRACTOR LOCATION RDT&E [ ] PRODUCTION [ ]	CONTRACT TYPE/NO	PROGRAM NAME/NUMBER	REPORT PERIOD	FORM APPROVED OMB NUMBER 22R0280

EVALUATION

Section 1 - Total Contract: Provide a summary analysis, identifying significant problems affecting performance. Indicate corrective actions required, including Government action where applicable.

Section 2 - Cost and Schedule Variances: Explain all variances which exceed specified variance thresholds. Explanations of variances must clearly identify the nature of the problem, the reasons for cost or schedule variance, impact on the immediate task, impact on the total program, and the corrective action taken. Explanations of cost variance should identify amounts attributable to rate changes separately from amounts applicable to manhours used; amounts attributable to material price changes separately from amounts applicable to material usage; and amounts attributable to overhead rate changes separately from amounts applicable to overhead changes and amounts applicable to changes in the overhead base.

Within this section, the following specific variances must be explained:
a. Schedule variances (Budgeted Cost for Work Scheduled vs Budgeted Cost for Work Performed)
b. Cost variances (Budgeted Cost for Work Performed vs Actual cost of Work Performed)
c. Cost variances at completion (Budgeted at Completion vs Latest Revised Estimate at Completion)

Section 3 - Other Analysis: In addition to the variance explanations above, the following analyses are mandatory:

a. Identify the effort to which the undistributed budget applies.
b. Identify the amount of management reserve applied during the reporting period, the WBS and organizational elements to which applied, and the reasons for application.
c. Explain reasons for significant shifts in the time-phasing of the PM Baseline shown on Format 3.
d. Explain significant changes to total man-months at completion shown on Format 4.
e. Explain the reasons for significant shifts in the time-phasing of planned or actual manpower usage shown on Format 4.

Section 4 - Over-target Baseline: If the difference shown in Block (7) on Format 3 becomes a negative value or changes in value, provide:

a. Procuring activity authorization for the baseline change which resulted in negative value or change.
b. Reasons for the additional budget in the following terms:
(1) In-scope engineering changes
(2) In-scope support effort changes
(3) In-scope schedule changes
(4) Economic change
(5) Other (specify)
c. The amount (by WBS element) for added in-scope effort not previously identified or budgeted.

CLASSIFICATION

Cost/Schedule Status Report (C/SSR)

- **Similarities to CPR**
  - **Format 1 (WBS)**
  - **Format 5 (Problem Analysis)**
- **Differences**
  - **Does not require use of approved management system & criteria**
  - **No current period reporting**
  - **BCWS and BCWP may be calculated by logical means at higher levels**
- **Application**
  - **Non-major contracts**

CLASSIFICATION *(When filled in)*

COST/SCHEDULE STATUS REPORT

DOLLARS IN _____

1. CONTRACTOR	2. CONTRACT		3. PROGRAM	4. REPORT PERIOD
a. NAME	a. NAME		a. NAME	a. FROM *(YYMMDD)*
b. LOCATION *(Address and ZIP Code)*	b. NUMBER			b. TO *(YYMMDD)*
	c. TYPE	d. SHARE RATIO	b. PHASE *(X one)* ☐ RDT&E ☐ PRODUCTION	

5. AUTHORIZED CONTRACTOR REPRESENTATIVE			
a. NAME *(Last, First, Middle Initial)*	b. TITLE	c. SIGNATURE	d. DATE SIGNED *(YYMMDD)*

6. CONTRACT DATA			
a. ORIGINAL CONTRACT TARGET COST	b. NEGOTIATED CONTRACT CHANGES	c. CURRENT TARGET COST *(a. + b.)*	d. ESTIMATED COST OF AUTHORIZED UNPRICED WORK
e. CONTRACT BUDGET BASE *(c. + d.)*	f. MANAGEMENT ESTIMATE AT COMPLETION	g. VARIANCE AT COMPLETION *(e. - f.)*	h. OVER TARGET BASELINE DATE *(YYMMDD)*

7. PERFORMANCE DATA

ITEM (1)	CUMULATIVE TO DATE					AT COMPLETION		
	BUDGETED COST		ACTUAL COST WORK PERFORMED (4)	VARIANCE		BUDGETED (7)	ESTIMATED (8)	VARIANCE (9)
	WORK SCHEDULED (2)	WORK PERFORMED (3)		SCHEDULE (5)	COST (6)			
a. WORK BREAKDOWN STRUCTURE ELEMENT								
b. COST OF MONEY								
c. GENERAL & ADMINISTRATIVE								
d. UNDISTRIBUTED BUDGET								
e. SUBTOTAL *(Performance Measurement Baseline)*								
f. MANAGEMENT RESERVE								
g. TOTAL								

CLASSIFICATION *(When filled in)*

ANSI/EIA-748-A-1998 Page 96

Examine Supplier's Analysis

Cost Performance Report (CPR) Format 5 variance analysis should address:

- **CV, SV (current and cum)**
- **clear description of reason for variance**
  - **Specific, not general**
- **material variances (e.g., price vs. usage)**
- **corrective action**
- **technical, schedule, and cost impacts**
- **impact to estimate at completion**

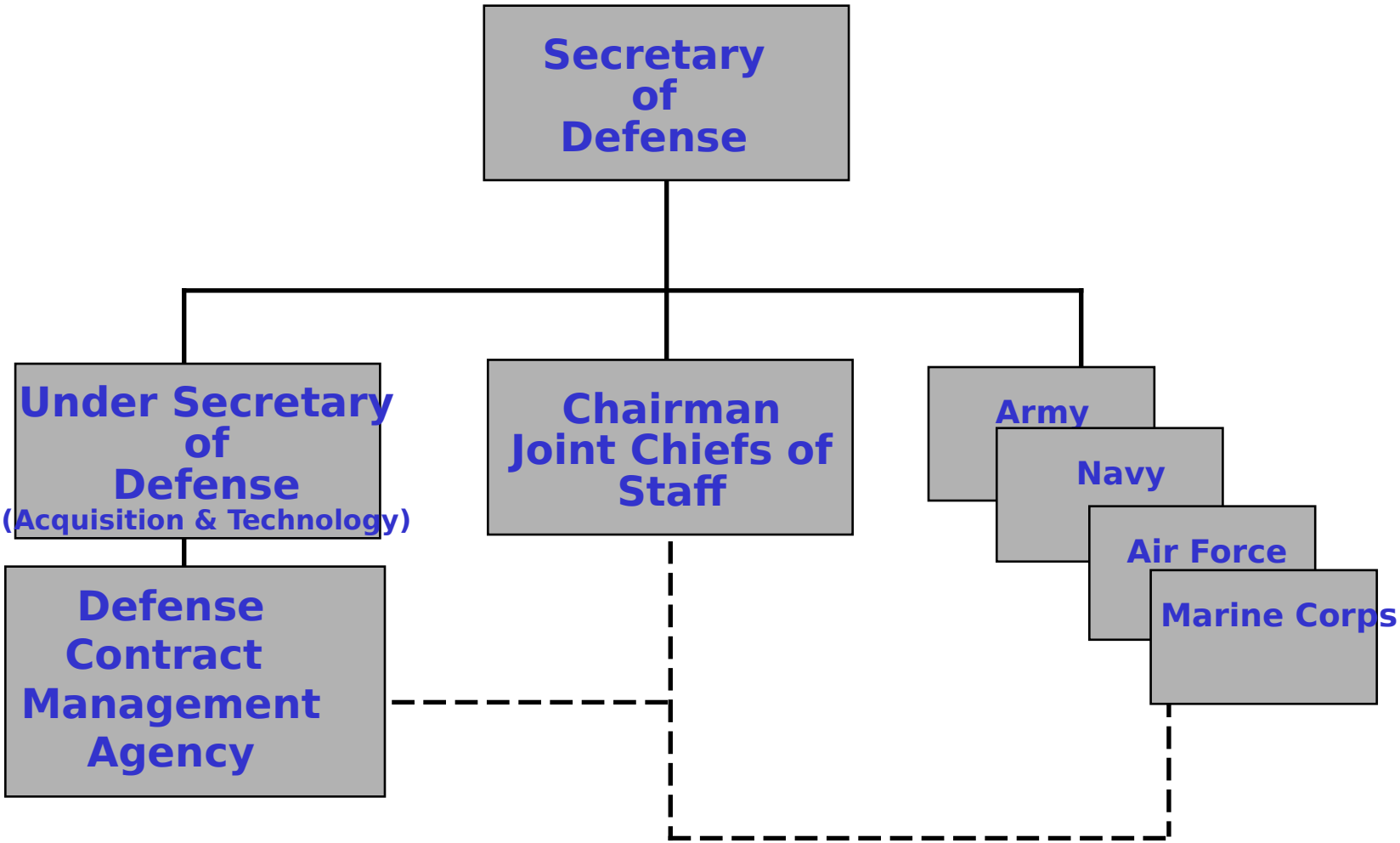
Should be written by Control Account Manager (CAM)

DCMA
Defense Contract Management Agency

Who is Defense Contracts Management Agency (DCMA) and what do they do?

DCMA is a Team Membe

...In the defense acquisition commu



Contract Administration

- DCMA - DoD's Principal Agent
- Civilian Agencies: NASA, DOE, & DOT
- Exceptions
  - SUPSHIPS - Construction
  - Ammunition Plants
  - Office of Naval Research
  - Army Corp of Engineers
  - Naval Facilities

Contract Administration Policy

- **Contract Administration Services (CAS) is an assigned responsibility to DCMA for DoD Customers**
  - **FAR PART 42 & DFAR 242**
- **Contract Administration is a delegated responsibility to DCMA for non-DoD Customers**
- **DCMA is the *DoD Executive Agent for EVMS* responsible for Contractor Compliance and Compliance Reviews**
  - **USD(AT) letter Dec 4, 1995**
  - **USD(AT) letter Oct 1, 1996**

Memorandum of Agreement

- Negotiated agreement between Government program management office and Contract Management Office (CMO)
- Identifies
  - Key individuals
  - Specific responsibilities
  - Priorities
  - Reporting requirements, format and frequency
  - Working relationships
- Signed by the CMO Commander and the Government Program Manager

Where DCMA Adds EVM Value

- **Estimates at complete are statistical formulas**
  - **Software packages available to provide array**
- **Strong effort within DCMA to move from statistical formulas to providing predictive analysis**
- **Translating known surveillance issues into quantified impacts on program cost and schedule**

DCMA
Defense Contract Management Agency

Discussion

Questions?

Additional Sources of Training

- **DAU Continuous Learning Center (no cost) at http://www.dau.mil/basedocs/continuouslearning.asp**
  - **EVM 100**
  - **AFIT 205**
- **DAU Courses (at cost; for DAWIA certification)**
  - **BCF 102**
  - **BCF 203**
- **Supplier furnished EVM training**

Informational Websites

- **http://www.acq.osd.mil/pm/**
- **http://www.pmi-cpm.org/**
- **Guide to Analysis of Contractor Cost Data (AFMC Pamphlet 65-501) https://www.afmc-mil.wpafb.af.mil/pdl/afmc/pam/65series/65_501/65-501p.pdf**
- **http://www.ndia.org**